ABSTRACT OF THE DISCLOSURE

A local disk system in a local mainframe computer includes one or more local disk units. Data in at least one of the local disk units are backed-up to a designated remote disk unit in a remote disk system. Data transfer between the local disk system and the remote disk system occurs over a fixed block infrastructure to increase data transfer rates. Accordingly, variable-length data received in the local disk system and destined to be backed-up to a remote disk system are first converted to fixed-length data prior to transmission over the fixed block infrastructure. In the remote disk system, fixed-length data received over the fixed block infrastructure are converted back to variable-length format.